OTEC
371.14609713
059DEIS

Cir. 35A
4,500- April, 1938

ONTARIO

Ontario Department of Education

SYLLABUS

OF

SUMMER COURSES AND EXAMINATIONS

FOR

Teachers' Certificates

IN

Agriculture

1938

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1938

Cir. 33A
4,500- April, 1938

ONTARIO

Ontario Department of Education

SYLLABUS

OF

SUMMER COURSES AND EXAMINATIONS

FOR

Teachers' Certificates

IN

Agriculture

1938

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1938

SUMMER COURSES AND EXAMINATIONS FOR TEACHERS' CERTIFICATES IN AGRICULTURE AND HORTICULTURE

COURSES OF STUDY

1. The theory and the demonstration of the lecture and the laboratory will be illustrated by the out-of-door practice. Most of the instruction will be of a practical nature and much of it will be given out of doors.

Each student taking Part I for the Elementary or the Intermediate Certificate will be provided with a garden for practice and observation, and shall visit it every day and keep records of work and observations. After the gardens are planted, the work in them will be carried on by the students. In some cases, the evenings will be found the most suitable time.

All students in the Elementary or Intermediate courses are required to complete the prescribed Winter Reading Courses as outlined hereafter under the requirements for the Elementary or Intermediate Certificates.

Students are required to keep careful records of all their work; these will be considered by the staff in their final appraisal of the student's claim for a certificate.

EQUIPMENT

2. Students are required to furnish their own working material for plant collection, etc. Such material may be bought at the college.

Students should bring pocket knives, pocket magnifying glasses, and any books which they possess and have found useful for the work in Agriculture. As a considerable amount of the work is taken out of doors, women students should provide themselves with suitable wearing apparel, e.g., walking shoes, garden hats, gloves, etc.

COURSES FOR THE ELEMENTARY CERTIFICATE IN AGRICULTURE AND HORTICULTURE

3. The following are the courses with the books of reference for the Elementary Certificate in Agriculture and Horticulture.

Part I

School Gardening: Planning and managing garden plots (each student will prepare and care for a plot); cultivating of garden plots; the school garden as a laboratory; care and use of tools; seeds and seed testing; transplanting; general vegetable gardening.

Bulletin 388.

Field Husbandry: The principles underlying crop production; the area and distribution of the principal field crops of Ontario; crop rotations; crop management; a study in the experimental plots of the characteristics of cultivated plants; the importance of Experiment Station work in field crops.

Field Crops. Etheridge.....
Ginn & Co., New York.

Crop Production. Hughes & Henson.....
The MacMillan Co., Toronto.

Bulletins on Field Crops.

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

Entomology: Characteristics and importance of insects and related animal groups; changes in insect life cycles; the common orders of insects; the characteristics ot these orders and a study of the common forms occurring in each; a collection of fifty insects prepared by the student and arranged into orders.

Field Book of Insects. Lutz.....
G. P. Putnam's Son, New York.
Elementary Entomology. Sanderson & Jackson.....
Ginn & Co., New York.

Floriculture: Propagation; perennials and the perennial border; flowering bulbs for indoor and outdoor use; pot plants; annuals for flowering outdoors.

Canadian Home Gardening the Year Round. A. B. Cutting.....
Musson Book Co., Toronto.
The Culture of Flowers .....
The Culture of Hardy Perennials and Biennials, and How to Grow Spring Flowering Bulbs (booklet). H. J. Moore.....
The Ryerson Press, Toronto.

Home Floriculture. E. Rexford.....
The Book of Annuals. Alfred C. Hottes.....
Success with House Plants. Kift and Hedenberg.....
Plant Propagation. Alfred C. Hottes.....
General Publishing Co., Toronto.

Landscape Gardening: School ground improvement; trees, shrubs, and conifers suitable for such purposes; propagation of trees and shrubs.

Plant Propagation and The Book of Trees. Alfred C. Hottes.....
Landscape Gardening. Cridland.....
General Publishing Co., Toronto.

Botany: The study of the structure of flowers as exemplified by the buttercup and mustard; examination and identification of weeds and weed seeds; a study of the Ontario Weed Control Act; collection of at least twenty common weeds; identification of the common native trees.

Weeds of Ontario, Bulletin 376.
Forest Trees of Ontario. Forestry Branch.....

Animal Husbandry: Type and breed identification; demonstration as to how to handle and show young live stock; definitions relative to live stock.

Dairying: Composition and properties of milk; the Babcock test, its use and value in dairy herd improvement including weighing milk and methods of recording production; sanitary production of milk and cream for fluid consumption and manufacture; pasteurization, and commercial distribution of whole milk; butter and cheese making in the farm dairy.

Bulletins 370-371-372.

Dairying, Farm and Factory. Dean.....
Ryerson Press, Toronto.

Poultry: Classification (six breeds); housing; feeding; breeding; incubation; brooding; sanitation and disease control; physiology of egg production; grading of eggs; culling; killing and marketing; tour of the college plant.

Poultry Production. Lippincott & Card (Last Edition)..... Lea & Febiger, Philadelphia.

Bulletin 379.

Soils and Weather: Classification of the kinds of soil; measurements of moisture in soil; cultivation; effect of frost and air upon the elements of soil; fertility of soils; climate; air movements; air pressure; influence of weather on crop production. Components of the solar spectrum and the part each plays in agriculture.

Organization and Methods: Course of Study; the Regulations of the Department of Education; equipment; laboratory and class methods; management of home gardens; school fairs; plans for Winter Reading Course.

Part II

Botany: Plant diseases; identification of wild plants; study of grasses and cereals; collection of at least ten additional weeds (total at least thirty) and ten grasses; collection of at least twenty species of weed seeds (this may be worked out between the first and second year).

Chemistry: A study of plants and their food requirements and soils; manures and fertilizers in relation to the problem of supplying these needs; the composition, digestibility and economic value of the various classes of animal foods; insecticides; fungicides and weed killers. (Lectures and laboratory work.)

Bee-keeping: Life history and behaviour during the active and inactive seasons; gathering of nectar and pollen; seasonal management; care and uses of honey; observation of the hive.

How to Succeed with Bees..... G. B. Lewis Co., Milwaukee, Wisconsin.

Physics: Soil drainage; taking of levels, chaining small areas, drafting profiles; effect of drainage on soil air, soil temperature, soil moisture and soil bacteria; farm machinery; electric fence; spontaneous combustion; fire prevention during the threshing season. Water systems; sewage disposal in rural homes and schools.

Field Husbandry: History, methods of cultivation and uses of the following crops: wheat, oats, barley, corn and forage crops; germination, selection and judging of seed; judging field roots; history and importance of the potato crop, cultural methods, uses, marketing; the improvement of crops through plant selection and artificial cross-pollination.

The Cereals in America. Hunt..... Orange Judd Co., New York.

Bulletins on Field Crops.

Fruit Growing: Orchards and small fruit plantations, planting, cultivation, propagation, grafting, spraying.

Orcharding and Small Fruit Culture. Anchter & Knapp..... McGraw-Hill Book Co., New York.

Entomology: A review of the orders of insects; natural factors in insect control; artificial methods with control; insecticides; common injurious insects in the various

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

orders of life histories and control measures; a collection of one hundred insects prepared by the student and arranged into orders.

Field Book of Insects. Lutz
G. P. Putnam's Son, New York.
Elementary Entomology. Sanderson & Jackson
Ginn & Co., New York.
Bulletins 356-358-359.

Bacteriology: What bacteria are and where they occur, their relation to foods, soil, water supply and infectious diseases; infection; disinfection; importance of a knowledge of bacteria in the dairy; pasteurization; food preservation.

Organization and Methods; The Regulations of the Department of Education; laboratory equipment for rural schools; school fairs; laboratory and class methods; management of home gardens.

WINTER READING COURSE

4. For the Certificate in Elementary Agriculture, candidates are required to have read two books, particulars of which are announced from time to time and may be obtained on application to the Inspector of Agricultural Classes, Department of Education, Parliament Buildings, Toronto.

Students who are completing the course for the Elementary Certificate by attendance at one summer session, must complete the Winter Reading Course.

A written examination on the books read will be held on Saturday of the first or second week of the Summer Session. Candidates will be required at the time of the examination to sign a statement that they have read the books selected.

COURSES FOR INTERMEDIATE CERTIFICATE IN AGRICULTURE

5. The following are the courses with the books of reference for the Intermediate Certificate in Agriculture:

Part I

Chemistry: Lectures and laboratory exercises on the chemistry of soils; plants; foods and nutrition; insecticides and fungicides.

The Chemistry of the Farm. Warington
Orange Judd Co., New York.

Physics: Pulleys and levers; electric fence; spontaneous combustion; fire prevention during the threshing season; field exercises and lectures on measurements of fields with chain, calculating areas, drawing plans; taking of levels, drainage plans; effect of drainage on soil moisture, soil air, soil temperature, soil bacteria; water holding capacity of soils; light in its relation to plant and animal growth.

An Introduction to the Scientific Study of the Soil. Comber
Edward Arnold & Co., London, England.

Botany: Practical identification of weeds, weed seeds and grasses and the study of a typical grass spikelet; collection of twenty-five weeds and ten grasses.

Weeds of Ontario, Bulletin 376.
Field, Forest and Garden Botany. Gray
American Book Co., New York.
Fodder and Pasture Plants, Department of Agriculture, Ottawa.

School Gardening: Planting and managing garden plots; care and cultivation of garden plots; the importance of the school garden; general vegetable gardening. Bulletin 388.

Entomology: Characteristics of insects and related animal groups; insect metamorphoses; natural factors in insect control; artificial methods of control; insecticides; the common orders and families of insects with characteristics; the common injurious insects in the various orders and families with life histories and control measures; laboratory field studies; a collection of one hundred insects prepared by the student and arranged into families.

References as for Part II, Elementary.

Bacteriology: Lectures and demonstrations on morphology and physiology of micro-organisms (bacteria, yeasts and moulds): bacteriology of the soil; legume seed inoculation; bacteriology of the water supply and sewage disposal; bacteriology in relation to milk and other dairy products; food preservation; fermentations. Infectious diseases of man and animals. Bacterial diseases of plants.

Agricultural Bacteriology. Russell and Hastings.
The Century Co., New York.

A Textbook of Bacteriology and Its Applications. Hilliard.
Ginn & Co., New York.

Bacteriology. Buchanan.
The Macmillan Co., Toronto.

Microbiology. Marshall.
Blakiston & Co., Philadelphia.

Poultry: Literature; genetics; poultry nutrition; embryology; incubation; incubation practice; housing; rearing; Canadian Egg and Poultry Grading Regulations; classification (at least six breeds); selection of stock; killing and marketing; poultry diseases and disease control.

Poultry Production. Lippincott & Card (Last Edition).
Lea & Febiger, Philadelphia.

Bulletin 379.

Bee-keeping: Life history and behaviour during the active and inactive seasons; gathering of nectar and pollen; seasonal management; care and uses of honey; observation of the hive.

How to Succeed with Bees.
G. B. Lewis Co., Milwaukee, Wisconsin.

The A.B.C. and X.Y.Z. of Bee Culture. Root.
Root & Co., Medina, Ohio.

Organization and Methods: Discussion of the Regulations of the Department of Education; directions and suggestions for carrying out the work in the schools.

Part II

Field Husbandry: History of crops; area of field crops in Ontario; different systems of farming; different kinds of soil; rotation of crops; application of manures and fertilizers; green manuring; preparation of the land for the different crops;

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

seed germinators; methods of cleaning, testing, and selecting farm seeds; seed judging; study of cereals, tubers, roots, fodder crops, grasses, clovers, silage crops, soiling crops, green manure crops, etc.; sowing, harvesting, storing, marketing.

Field Crops. Etheridge
Ginn & Co., New York.
Small Grains. Carleton
The Macmillan Co., Toronto.
Forage Plants and Their Culture. Piper
The Macmillan Co., Toronto.
Crop Production. Hughes and Henson
The Macmillan Co., Toronto.
Farm Crop Projects. Burlison and Nolan
The Macmillan Co., Toronto.
Bulletins on Field Crops.

Animal Husbandry: A study of the characteristics of the principle breeds of live stock that are bred on farms in Ontario; discussion on the fundamental principles of feeding and management of the various classes of live stock; an outline of market requirements; a study of the principles involved in the development of the breeds; practical work in judging live stock.

Types and Breeds of Farm Animals. Plumb (Revised Edition)
Ginn & Co., New York.
Bulletins on Live Stock.

Chemistry of Soils and Fertilizers: The supply and availability of nutrients in soils; manure, its composition, losses in storage, and fertilizer value; fertilizers, their nature, properties, and uses; the principles of fertility maintenance.

Soils and Soil Management. Millar
Webb Book Publishing Co., St. Paul, Minn.
Bulletin 364.
Bulletin 40.
Dominion Department of Agriculture.

Dairying: History and present status of commercial dairying; standards of composition for dairy products; regulations covering sanitary quality of fluid milk and grading of cream for manufacture; commercial manufacture of butter, cheese and concentrated milks. Sanitary production of milk; cow-testing, weighing, sampling and recording milk production; fat determination in milk, cream and by-products; the lactometer and its application; S.N.F. in milk.

Bulletin 370.

Principles of Dairying. Judkins and Smith
John Wiley & Sons, Inc., New York.

Botany: A study of the more common diseases of cereals, vegetables and fruits as to cause, symptoms and prevention; identification and collection of plant diseases.

Manual of Plant Diseases. Heald
McGraw-Hill Book Co., New York.
Principles of Plant Pathology. Owens
John Wiley & Sons, New York.
Grain Smuts, Bulletin 349.
Diseases of Vegetables, Bulletin 386.

Floriculture: Pot plants for home and school; annuals; perennials and the perennial border; general care of plants inside and out; designs for beds and borders; propagation; hardy and tender bulb culture.

References: (the same as for Part I).

Landscape Gardening: The improvement of home, school grounds and rural areas; propagation; planting value and general care of trees and shrubs for landscape effects; the making and care ot a lawn and lawn seed formulae.

Canadian Home Gardening the Year Round. A. B. Cutting.....
Musson Book Co., Toronto.
Plant Propagation and The Book of Trees. Alfred C. Hottes.....
Landscape Gardening. Cridland.....
General Publishing Co., Toronto.

Fruit Growing: Treatment of fruit plantations; cultivation, grafting, propagation, spraying, marketing; packing and packages.

Orcharding. Gadner, Bradford, Hooke.....
McGraw-Hill Book Co., New York.

Vegetable Gardening: Methods of seed sowing, transplanting and growth of young vegetable plants for early and late crops.
Preparation and care of hotbeds and cold frames.
Production of early and late vegetables.

Vegetable Gardening. By H. C. Thompson.....
McGraw-Hill Book Co., New York.

Agricultural Economics Problems: The problem of reducing costs of production on the farm; problems connected with attempts at raising prices of farm products; the problem of securing a proper relation between the prices which farmers receive and those which they pay; the problem of securing a larger market demand for farm products; the problem of reducing marketing spreads or increasing marketing efficiency.

Farm Economics. App and Waller.....
Published 1938 by J. B. Lippincott, New York.
Report of the Royal Commission on Price Spreads.....
King's Printer, Ottawa.
The Canadian Farmer and the Machine Age, pamphlet by W. M. Drummond.....
Social Service Council of Canada, 37 Bloor St. W., Toronto.

Rural Sociology: Rural sociology as an applied science; basic differences in rural and urban social conditions; a study of rural social organization in relation to business, population, health, recreation, means of communication, religion, social contract, home conditions, standards of living; developing a social programme for a rural community.

Constructive Rural Sociology. John M. Gillette.....
Macmillan Co., Toronto.
The Salt of the Earth. R. W. Armstrong.....
Graphic Publications, Ottawa, 1930.

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

City and Country. P. C. Armstrong and F. E. M. Robinson
Macmillan Co., Toronto, 1934.
Fifty Years of Rural Canada. Professor J. R. Watts (pamphlet, 1933)
United Church Board of Home Missions, Toronto.

Organization and Methods: Discussion of the Regulations of the Department of Education; directions and suggestions for carrying out the work in the schools.

WINTER READING COURSE

6. For the Intermediate Certificate in Agriculture candidates are required to read two books, particulars of which are announced from time to time and may be obtained on application to the Inspector of Agricultural Classes, Department of Education, Parliament Buildings, Toronto.

Teachers completing the work for the Intermediate Certificate by attendance at one summer session must complete the Winter Reading Course.

A written examination on the books selected will be held on Saturday of the first or second week of the Summer Session. Candidates will be required at the time of the examination to sign a statement that they have read the books selected.

COURSES FOR THE SPECIALIST'S CERTIFICATE IN AGRICULTURE

7. The following are the Courses for the Specialist's Certificate in Agriculture, obtainable by the holders of the Permanent or Interim Specialists' Certificate in Science or by teachers otherwise qualified (see page 9, General Announcement of Summer Courses, 1938):

(1) The Two Summer School Courses for the Intermediate Certificate in Agriculture (including a course in Farm Mechanics).

(2) A third Summer School Course in the following:

Botany: The cause of plant diseases and their control; a microscopic study of the more important fungi causing diseases of cereals, vegetables and fruits.

Entomology: Insecticides and fungicides in common use today; their composition, merits and defects.

Chemistry: Advanced course of lectures and laboratory work in agricultural chemistry similar to that prescribed for Intermediate Parts I and II.

Bacteriology: Dairy bacteriology and soil bacteriology.

Field Husbandry: Seed judging, seed cleaning machines and other Experiment Station apparatus; agricultural organizations for crop improvement; field crop competitions; co-operative testing; Boys' Club work, etc.

Horticulture: Vegetable, flower and fruit judging; plant breeding; seed production.

Seed Production and Marketing. Cox and Starr.
John Wiley and Sons, Inc., New York.
Judging Standards
Canadian Horticulture Council, Ottawa.

Animal Husbandry: Live stock judging; animal nutrition studies; breeding studies.

Poultry: Literature; poultry farm location and management; poultry genetics; nutrition and analysis of nutritional experiments; embryology; a critical analysis of the factors controlling the hatchability of eggs.

Poultry Husbandry. Jull.....
The McGraw-Hill Book Co., New York.

Dairying: Present status of the dairy industry; trends in production, domestic consumption, exports and imports of dairy products, official grades and quality standards of dairy products; judging milk, cream, butter and cheese; common defects in butter and cheese; Provincial and Municipal Milk Control; current problems in the dairy industry.

Judging Dairy Products. Nelson and Trout.....
Olsen Publishing Co.

Organization and Methods: Discussion of the Regulations of the Department of Education.

NOTE:—In 1938 the time during the fifth week will be given to Farm Mechanics.

COURSE IN FARM MECHANICS

8. The following are the subjects of the course for the certificate in Farm Mechanics, obtainable by teachers who hold or are in course of preparation for an Intermediate certificate in Agriculture, or male teachers who hold the Elementary certificate in Agriculture. The course will be arranged to cover as far as practicable the topics which have the commonest application to farm work; suitable books of reference are given below:

(1) The use and care of common woodworking tools; making of simple objects required on the farm, such as hen coop, trap nest, dog kennel, tool handles, whiffletrees, double-trees, wagon jack, feed hopper, cold frame, wheelbarrow, saw bench, ladder, window boxes, split log drag, etc.

Preparation and reading of plans and elevations of farm buildings; construction of the simpler buildings such as hen house, pig pen.

(2) Plans and specifications for a farm mechanics building to be erected on the school grounds or for the adaptation of a portable garage or of another building for this purpose.

(3) Simple metal work; the hand forge and the forge fire; use and care of the commoner tools; the making of simple objects such as staples, hooks, latches, chains, etc.

(4) General care and repair of farm buildings and implements; windows, fences, gates, machinery, painting, etc.

(5) Repairing harness, rope knotting and splicing.

(6) Simple concrete construction; proper mixtures for various purposes; making of fence posts, walks, troughs, etc.

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

Farm Shop Work. Brace & Mayne.....
American Book Co.
Agricultural Woodworking. Louis M. Roehl.....
The Bruce Publishing Co., Milwaukee, Wis.
Handy Farm Devices. Rolfe Cobleigh.....
Orange Judd Co., New York.

EXAMINATIONS

9. Practical and written examinations will be conducted by the staff at the close of the courses of instruction. A candidate must obtain 50 per cent. of the marks assigned to each subject in order to pass.

CERTIFICATES AND QUALIFICATIONS FOR ADMISSION TO COURSES

10. (1) Elementary Certificate.

(a) To the course for the Elementary certificate may be admitted applicants who hold professional certificates qualifying them to teach in the schools of the Ontario Provincial System.

(b) Candidates who pass the examinations and other tests of Parts I and II of the prescribed course for an Elementary certificate will be granted Interim certificates in Elementary Agriculture and Horticulture valid in a Public or Separate School.

Teachers may be granted Interim Elementary certificates in Agriculture on the completion of two Summer Courses in Agriculture or on the completion of the following courses:—

1. The Lower School or Middle School course in Agriculture, followed by a course at a Normal School and one Summer Session in Agriculture.

   Only those who have taken the Lower School or Middle School course by actually attending a school in which Agriculture is taught in accordance with the High School Regulations and approved by the Departmental Inspector of Agriculture and Horticulture will be granted exemption from one Summer Course. The Winter Reading Course is required of all candidates who are completing the requirements for the Elementary certificate in Agriculture and Horticulture by attendance at one Summer Session.

2. The Lower and Middle School courses in Agriculture, followed by a course at a Normal School.

   Only those who have taken the Lower and Middle School courses by actually attending a school in which Agriculture is taught in accordance with the Regulations and approved by the Departmental Inspector of Agriculture and Horticulture will be entitled to an Elementary certificate in Agriculture.

When teachers make application for an Elementary certificate in Agriculture under Section 2 above, they should forward with their applications their Lower and Middle School certificates, showing their standing in Agriculture, also a statement from the Principal of the School in which they took the course, certifying that they have complied with the requirements of Sections 1 and 2, above. When applying for exemption from one Summer Course under Section 1 above they should submit with their applications their Lower or Middle School certificates,

showing their standing in Agriculture, also a statement from the Principal of the School in which they took the course, certifying to the completion of the prescribed course in Agriculture.

NOTE:—Teachers who hold certificates of having passed the complete examination in Agriculture of the Lower and Middle School in 1928 or prior thereto, may, on application, accompanied by their certificates, be granted Interim Elementary certificates in Agriculture. Those who in 1928 or prior thereto, had passed either the Lower School or the Middle School examination in Agriculture, but not both, may fulfil the requirements for the Elementary Certificate in Agriculture by completing one Summer Session.

(a) To the course for the Intermediate certificate may be admitted Public and Separate School Inspectors or those qualifying for the Inspector's certificate who have already completed a part of the work; Normal Masters and other applicants who hold professional certificates qualifying them to teach in High or Continuation Schools and whose academic preparation has included a competent knowledge of Science. The minimum requirement in Science is a First Class certificate with Biology and either Physics or Chemistry of the Upper School Course, or a First Class certificate with Biology of the Upper School and at least two years' experience in teaching Chemistry and Physics in a secondary school in Ontario.

NOTE:—(1) The equivalent of Biology and either Chemistry or Physics of the Upper School taken at University will be acceptable.

(b) Candidates who pass the examinations and other tests of Part I and II of the prescribed course leading to an Intermediate certificate will be granted Interim Intermediate certificates in Agriculture valid in a Public or Separate, High or Continuation School.

(c) Teachers who hold Elementary certificates in Agriculture, and who are qualified in other respects, may qualify in an additional Summer Course and the Winter Reading Course for the Intermediate certificate in Agriculture.

(3) Candidates who hold Intermediate certificates in Agriculture and certificates in Farm Mechanics or are otherwise qualified, in order to qualify for certificates as Specialists in Agriculture, are required to take the prescribed work of a third Summer Session and the examinations thereof.

(4) The course prescribed for the certificate in Farm Mechanics is covered in one Summer Session.

BOARD AND LODGING

(1) (a) Applicants admitted to the Course in Agriculture at the Kemptville Agricultural School, Kemptville, and the Ontario Agricultural College, Guelph, may obtain board and lodging in residence at the rate of $1.00 per diem. Women students will be given preference in assigning rooms at Kemptville.

(b) Application for rooms should be made on or before June 22nd, to the Principal of the School at Kemptville, or to the President of the College at Guelph, as the case may be. Each application shall be accompanied by $5.00, which will be allowed on the bill for board and lodging, or will be returned in case of illness or other unavoidable cause of absence.

NOTE:—Except where otherwise stated, bulletins listed are those of the Ontario Department of Agriculture. Teachers desiring books of reference may secure them direct from the publisher or from the Co-operative Supply Department, Ontario Agricultural College, Guelph.

NOTE:—Rooms will be reserved in the order in which applications therefor are received. Each student rooming in residence at the Ontario Agricultural College must bring the following equipment:—two pairs of single sheets, one pillow, two pillow cases, one bed spread, towels, toilet soap and laundry bag. All linen should be plainly marked and the student's name should be in distinct letters on the laundry bag.

Students in residence at Kemptville are not required to provide this equipment.

NOTE:—A swimming pool is provided at Guelph. All students should provide themselves with bathing caps. Women students should bring bathing suits. Tennis courts are also provided at both Guelph and Kemptville. Those who desire to play should bring their racquets and balls.